B.TECH
(SEM-II) THEORY EXAMINATION 2017-18
ENVIRONMENT & ECOLOGY

Time: 3 Hours   **Total Marks: 100**

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1.   **Attempt *all* questions in brief.**   **2 x 10 = 20**

   a.   Discuss the term ecosystem.
   b.   Discuss the process of bioaccumulation and biomagnification.
   c.   What do you mean by the term deforestation?
   d.   Write the causing agent name of typhoid and cholera.
   e.   Define the term Eutrophication.
   f.   Which gas is produced during anaerobic digestion process?
   g.   What are the biogeochemical cycles?
   h.   What is the smog?
   i.   Differentiate between noise and sound.
   j.   Write the name of gases involved in global warming.

SECTION B

2.   **Attempt any *three* of the following:**   **10 x 3 = 30**

   a.   Define the environment. Classify the atmospheric segments of environment with neat sketch. State the main activities taking place in each of them.
   b.   Classify the mineral resources. Discuss various adverse effect of mining on environment.
   c.   Write the various adverse effect of air pollution. Discuss and draw a neat sketch to control the Particulate matter from smoke.
   d.   Discuss the phenomenon of global warming. What is various adverse effects on surrounding.
   e.   Discuss various steps of nitrogen cycle with neat sketch. Write the name of microorganism involved in nitrogen cycle.

SECTION C

3.   **Attempt any *one* part of the following:**   **10 x 1 = 10**

   (a) Discuss the ecological pyramids. Define various type of ecological pyramids exists in ecosystem?

   (b) Proves that the flow of energy is unidirectional with suitable diagram.

4.   **Attempt any *one* part of the following:**   **10 x 1 = 10**

   (a) Discuss the objectives of sustainable development. How unsustainable development can be converted in sustainable development.
   (b) Define the term EIA. Describe the various steps used in EIA.

5. **Attempt any *one* part of the following:** 10 x 1 = 10

   (a) Discuss the mechanism of solar cell with diagram. What are the major advantage and disadvantage of solar energy.

   (b) What are solid wastes? Discuss their type and disposal methods with merits and demerits.

6. **Attempt any *one* part of the following:** 10 x 1 = 10

   (a) Classify the source of water pollutants? Discuss the various step of waste water treatment with suitable diagram.

   (b) What are various adverse effects of fluorosis? Discuss the Nalgonda technique to de-fluoride the water.

7. **Attempt any *one* part of the following:** 10 x 1 = 10

   (a) Discuss the features of water pollution act with aim and penalties.

   (b) How women education help in environmental protection. Discuss the policy of Indian government for development of women education.